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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/595,249

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EXAMINER

WALSH, RYAN D

ART UNIT

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/595,249	<b>Applicant(s)</b> MAKIURA ET AL.	
	<b>Examiner</b> RYAN D. WALSH	<b>Art Unit</b> 2852	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1, 2, 4 and 5 is/are rejected.
- 7) ☒ Claim(s) 3 and 6-11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 March 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. ____. |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>6/15/2006</u> . | 6) <input type="checkbox"/> Other: ____.  |

## **DETAILED ACTION**

### ***Drawings***

The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because reference characters “24a” and “24b” have been used to designate both a feed roller and a blade member. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either “Replacement Sheet” or “New Sheet” pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

### ***Claim Objections***

Claims 1, 6 and 10 are objected to because of the following informalities:

Regarding claim 1, the claimed, “the free length” in line 21 of the claim, lacks proper antecedent basis in the claim.

Regarding claim 6, the claimed, “a vibrating portion for causing the toner catching sheet to vibrate by touching the toner catching sheet when the paper peeling portion abuts or separates from the image bearing member” is unclear. The vibrating portion of the paper peeling claw can only vibrate the toner catching sheet when it is separated

from the image bearing member. Therefore, the claimed, "paper peeling portion abuts"... "the image bearing member" is unclear.

Regarding claim 10, the claimed, "the separating member" in line 2-3 of the claim, lacks proper antecedent basis in the claim.

Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 1-2 and 4 are rejected under 35 U.S.C. 102(b) as being anticipated by Koiso (US Pat. # 5,021,830).

Regarding claim 1, Koiso teaches, "A cleaning device, comprising: a cleaning unit (Fig. 2, ref. # 17) which is provided with an open portion (between 172 & 176 or 172 & near ref. # 173A) disposed opposite an outer circumferential portion of an image bearing member and is disposed downstream of a position for transferring (at 12 in Fig. 1) to a paper a toner image which is formed on the image bearing member; a cleaning blade (172) which is provided in the interior of the cleaning unit and wherein an apical portion abuts the outer circumferential portion of the image bearing member, for scraping off residual toner attached to the image bearing member; and a toner catching sheet (176) disposed upstream in a rotating direction of the image bearing member from the open portion of the main body of the cleaning unit body, said toner catching sheet

being provided in the interior of the cleaning unit and parallel in a lengthwise direction to an axial direction of the image bearing member (along drum 6, therefore they are parallel), wherein in the toner catching sheet, a first end portion (near 177) in a direction perpendicular to the lengthwise direction is affixed to the cleaning unit, a second end portion (on drum 6) opposed to the first end portion abuts the outer circumferential portion of the image bearing member, and the free length from an affixed position of the first end portion until the position at which the second end portion abuts the outer circumferential portion of the image bearing member is determined by an amount of paper dust buildup on the outer circumferential portion of the image bearing member in the lengthwise direction (since the paper sheet is made of a resin material (easily deformable), it will have different lengths depending on the amount of paper dust against it, see Col. 3, Ln. 59-65)."

Regarding claim 2, Koiso teaches, "wherein in the toner catching sheet, a first free length corresponding to a location at which there is a large amount of paper dust buildup on the outer circumferential portion of the image bearing member is longer than a second free length corresponding to a location at which there is a small amount of paper dust buildup on the outer circumferential portion of the image bearing member (easily deformable), it will have different lengths depending on the amount of paper dust against it, see Col. 3, Ln. 59-65)."

Regarding claim 4, Koiso teaches, "wherein the location at which there is a large amount of paper dust buildup on the outer circumferential portion of the image bearing member corresponds to a region in which is disposed a separating member for

transporting the paper to the image bearing member one sheet at a time in the axial direction of the image bearing member (the image bearing member is inside of the image forming apparatus, as is the paper separating member, therefore, a position of possible paper dust buildup "corresponds to" the region of location of the separating member)."

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claim 5 is rejected under 35 U.S.C. 103(a) as being unpatentable over Koiso (US Pat. # 5,021,830) in view of reference B (JP 58-010462).

Regarding claim 5, Koiso does not appear to teach, "wherein the toner catching sheet is a resin film and is charged with the opposite polarity of charge characteristics of toner." However, reference B teaches the deficiencies of Koiso (see partial of abstract cited on IDS). It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Koiso's invention to include wherein the toner catching sheet is a resin film and is charged with the opposite polarity of charge characteristics of toner.

The ordinary artisan would have been motivated to modify Koiso's invention in a manner described above for at least the purpose of easily attracting residual toner remaining on the photoconductive drum to facilitate the cleaning process.

***Allowable Subject Matter***

Claim 3 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Regarding claim 3, the prior art does not teach or suggest the claimed, “wherein the affixed position of the first end portion of the toner catching sheet with respect to the sheet attaching member includes a first affixed position which corresponds to the first free length and a second affixed position which corresponds to the second free length, the first affixed position being set to a position separated further from the outer circumferential portion of the image bearing member than the second affixed position, such that the first free length is longer than the second free length.”

Regarding claims 6-11, the prior art does not teach or suggest the claimed, “said paper peeling claw being provided with a paper peeling portion for peeling the paper from the image bearing member and a vibrating portion for causing the toner catching sheet to vibrate by touching the toner catching sheet when the paper peeling portion [abuts or] separates from the image bearing member.” Note: “abuts or” should be removed to clarify claim based on the claim objection above. (see applicant’s figure 7a & b)

***Conclusion***

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RYAN D. WALSH whose telephone number is (571)272-2726. The examiner can normally be reached on M-F 9:00am-5:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Gray can be reached on 571-272-2119. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/David M Gray/  
Supervisory Patent Examiner,  
Art Unit 2852

/Ryan D Walsh/  
Examiner, Art Unit 2852